

Appl. No. 09/187,358
Amdt. dated July 2, 2003
Reply to Office action of June 5, 2002

REMARKS/ARGUEMENTS

On December 4, 2002, applicants filed a Notice of Appeal From the Examiner to The Board of Patent Appeals and Interferences, with the Brief being due February 4, 2003. Applicants are filing herewith a petition to extend the time to July 4, 2003 for filing the Brief. Since July 4, 2003, is a Federal holiday, and falls on a Friday, the next business day for the United States Patent and Trademark Office, which is not a Saturday, Sunday or a Federal holiday, is Monday, July 7, 2003. Therefore, the above-noted petition is being filed to effectively extend the time for filing the Brief to July 7, 2003.

Claims 1, 2 and 7 through 15 remain under consideration in this application.

Claims 1, 2, 7, 8, 9, 12, 13 and 15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,579,975 (hereinafter "the Moorman patent").

Applicants have amended claim 1, which is the only independent claim in the application, to remove any reference to "a transfer arrangement (8)" and "a transfer region (15)" and have inserted "a head duct plane" and "a prescribed location." The head duct plane is defined as a plane in which the head guiding duct (13) is located, and extends into the conveying duct (16), whereat the prescribed location is located for receipt of the head (41) of an elongate component (12) as it exits from the feed duct (11).

Applicants further set forth in amended claim 1 that the at least one portion (21) of the at least one catch element (18) is located, and remains, externally of the prescribed location.

In addition, applicants set forth in claim 1 a biasing element (39) which is positioned to normally urge the at least one portion (21) into the feed path of the head guiding duct (13), and which is mounted for deflected movement out of the feed path upon engagement with each of the elongate components (12).

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The Moorman patent shows a nailing tool in which a cartridge of nails 26 are linked together by a pair of tape strips 27 and 28. The linked nails 26 are mounted in an inner magazine portion 19 which is pivoted for movement about a pin 31, at a rearward portion of the tool, relative to an outer magazine portion 18. As shown in Fig. 6, the pointed end of the lead nail 26a extends below the trailing nails, and is locatable in a hole 64 of a first workpiece 65 and into engagement with a surface of a second workpiece 66. At the same time, the pointed end of the second nail 26 is in engagement with an outer, or upper, surface of the first workpiece 65.

In order to drive the lead nail 26a into the second workpiece 66, the tool is pressed toward the workpiece, whereby the first several trailing nails 26 engage the upper surface of the workpiece 65, and are pushed upward. At this time, the top surface of the head of the second, or first trailing, nail 26 engages the lower nose of a pawl 59, which facilitates the raising of the inner magazine portion 19 to accommodate the upward shift of the cartridge of nails.

As shown particularly in Fig. 7, the pawl 59 is mounted on a pivot pin 60, and is urged in a clockwise direction by a flat spring plate 61. However, the underside of an upper wing of the pawl 59 is in engagement with an upper shoulder of a block 52, which precludes the pawl from being pivoted in a clockwise direction notwithstanding the presence of the spring plate 61.

In the text of the specification at column 7, lines 66 and 67, and continuing through to line 6 of column 8, it is stated,

"The spring plate 61 normally maintains the pawl 59 in position shown in FIGS. 1, 2, 6, 7 and 8. In this position, the nose of the pawl engages the head of the second nail 26 of the row. This assures that when the tool is pressed toward the workpiece, the nails engaging the workpiece will move upwardly in the guide body drive track 5a and, through the action of the pawl, the inner magazine 19 will move upwardly with the nails, to its second position."

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A close examination of Fig. 7 shows that the underside of the nose of the pawl 59 is spaced above the upper surface of the head of the second nail 26 and, is maintained in this position according to the above quoted passage. The meaning of the second sentence of the quoted passage is that, with the pawl 59 in the maintained position, **and when the second nail 26 is raised**, the nose of the pawl engages the upper surface of the head of the second nail. The second sentence does not mean that the head of the second nail 26 engages the pawl 59 when the second nail is being fed down the track toward the nail-insertion position.

Assume for discussion purposes that the nose of the pawl 59 was in position to engage the head of the second nail 26 as the nail was being fed down the track. The pawl 59 would have to pivot, or be deflected, in a clockwise direction to allow the nail to eventually pass to the insertion position. As noted above,, and as clearly shown in the above-noted figures, the pawl cannot be pivoted any further in the clockwise direction because of the abutting surfaces of the pawl 59 and the shoulder of the block 52. Therefore, contrary to the Examiner's interpretation (see item 10 on page 6 of the above-noted Office action) of the above-quoted passage, the pawl 59 cannot be in the path of the nail heads. Otherwise, the nails could not, at any time, be moved past the pawl 59 for the reasons explained above.

As set forth in applicants' claim 1, the biasing element (39) urges the at least one portion (21) of the at least one catch element (18) into the feed path, and the at least one catch element is mounted for deflected movement out of the feed path. Clearly, the structure of the Moorman patent does not permit such engagement and deflection.

For the foregoing reasons, applicants submit that claim 1, and dependent claims 2, 7, 8, 9, 12, 13 and 15, patentably distinguish over any teaching of the Moorman patent, and hereby request withdrawal of the rejection of these claims on the basis of the Moorman patent.

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Applicants set forth further in claim 2 that a locking face (22) of the at least one catch element (18) prevents any elongate component (12) from slipping from the prescribed location of the conveying duct (16). There is no hint in the Moorman patent that the pawl 59 prevents the lead nail 26 from slipping from the insertion position. The purpose of the pawl 59 is as described above in the quoted passage. Therefore, applicants' claim 2 distinguishes further over any teaching of the Moorman patent.

Applicants set forth in claim 7 that the at least one catch element (18) is acted upon by the biasing element (39) to move the catch element from the feed path upon engagement with the elongate components (12) passing through the feed path. Again, the Moorman patent does not teach any structure which is biased to move from the feed path upon engagement with the nails 26 passing through the feed track. Therefore, applicants' claim 7 distinguishes further over any teaching of the Moorman patent.

Applicants set forth in claim 8 that the compression spring (39) is arranged to engage the at least one catch element (18) between the axis (38) and the first end (the at least one end (21)). The Moorman teaches a spring 61 which engages the pawl 59 between the pivot pin 60 and an end of the pawl, which clearly does not extend into and out of the feed path in the manner of applicants' first end (21). Therefore, applicants' claim 8 distinguishes further over any teaching of the Moorman patent.

Applicants set forth in claim 9, two relatively displaceable positioning segments (9,10), which define a recess (24) through which the component (12) can be introduced into the prescribed location of the conveying duct (16). The path of the structure of the Moorman patent which facilitates the locating of the lead nail 26a for insertion into the workpiece is the guide body 5 which defines the drive track 5a. The safety trip 6 is outside of the upper portion of the body 5, and well above the location within the body where the nail 26a is located for insertion into the

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workpiece. In fact, the safety trip 6 plays no part in defining a recess through which the nail travels to the insertion location. Therefore, applicants' claim 9 distinguishes further over any teaching of the Moorman patent.

Applicants set forth in claim 12 that the positioning segments (9,10) have a form substantially corresponding to the cross section of the feed duct (1). In the Moorman patent, as noted above with respect to claim 9, the safety trip 6 is outside of the body 5, and above the location of the nail 26a, the safety trip in combination with the body cannot provide a form which corresponds to the cross section of the feed track. Therefore, applicants' claim 12 distinguishes further over any teaching of the Moorman patent.

Applicants set forth in claim 13 that the positioning segments (9,10) form a continuation of the feed duct (11). In the Moorman patent, as noted above, the safety trip 6 does not form any part of feed track, and does not cooperate with the body 5 in any way to facilitate a feed path for the lead nail 26a. Therefore, applicants' claim 13 distinguishes further over any teaching of the Moorman patent.

Applicants sets forth in claim 15 a second end portion (48) of the at least one catch element (18), a stop surface (49) and the biasing element (39) which normally urges the second end portion into engagement with the stop surface to limit the distance the first end portion (21) is urged into the feed path of the head guiding duct. As noted above, the Moorman patent does not teach any structure which urges an end portion of the pawl 59 into the feed path of the nails 26 and, therefore, cannot teach structure which limits the distance an end portion can extend into the feed path. Therefore, applicants' claim 15 distinguishes further over any teaching of the Moorman patent.

Applicants submit that, for the foregoing reasons, claims 2, 7, 8, 9, 12, 13 and 15 distinguish further over any teaching of the Moorman patent, and request the withdrawal of the rejection of these claims.

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Claims 1, 2, 7 and 8 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U. S. Patent No. 5,897,045 (hereinafter "the Olvera patent").

The effective date of the Olvera patent is September 12, 1997. Attached hereto is a Declaration under 37 C.F.R. § 1.131 submitted by the applicants of this application. As provided in the Declaration, applicants did establish invention of the subject matter of applicants' rejected claims 1, 2 and 7 through 15 of this application, prior to September 12, 1997. The establishment of the invention occurred in the WTO country of Germany. Therefore, applicants submit that any rejection based the Olvera patent should be withdrawn.

Claims 1, 2 and 7 through 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,813,114 (hereinafter "the Blacket patent").

Applicants set forth in amended claim 1 that elongate components (12) having a head (41) and a shank (42) are fed through a feed duct (11), with the heads being moved through a head guiding duct (13), which is located in a head duct plane. The components (12) are fed into a conveying duct (16), with the head (41) of each component (12) being fed from the feed duct (11) into a prescribed location within the conveying duct, and which is located in the head duct plane. The at least one portion (21) of the at least one catch element (18) is removably extendable into and out of a feed path of the head guiding duct (13) and is located externally of the prescribed location. A biasing element (39) normally urges the at least one portion (21) into the feed path of the head guiding duct (13). The at least one catch element (18) and the at least one portion (21), while remaining externally of the prescribed location, are mounted for deflected movement out of the feed path of the head guiding duct (13) against the normal urging of the biasing element (39) upon engagement with each component (12).

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The Blacket patent shows, in Fig. 8 thereof, a pressurized, inclined supply passage 220 for guiding rivets 217 into an upper portion of a delivery passage 212. A leaf spring 229 has an upper end which literally extends into the delivery passage 212. As a head of the rivet 217 passes into the delivery passage 212, the upper end of the leaf spring 229 is deflected farther into the delivery passage. This allows the rivet 217 to be pressure-moved upward in the delivery passage 212 to a location which is beyond a head guide plane, in which a head guide passage of the supply passage 220 is located. It is noted that pins or balls 260 are also located in the delivery passage, including the area occupied by the upper end of the leaf spring 229.

The above description is supported by the specification of the Blacket patent at column, lines 1 through 6, which reads as follows:

"To prevent the rivets 217 from re-entering the supply passage 220 under gravity, a leaf spring 229 extends into the supply passage 220 **and the delivery passage 212**, the leaf spring 229 and the pins or balls 260 being deflected to one side as the rivet is blown from the supply passage into fastener delivery passage 212." (Emphasis added)

From the above quoted passage of the Blacket patent, it is clear that the upper end of the leaf spring 229 extends into the delivery passage. The purpose of the leaf spring 229 is to prevent the re-entry, by gravity, of the rivet 217 into the supply passage 220, upon the loss of feed pressure to sustain the rivet in the upper position shown in Fig. 8. Therefore, the upper end of the leaf spring 229 must be located in the delivery passage 212 to retain the rivet at the juncture of the supply passage 220 and the delivery passage 212 upon the loss of feed pressure so that, upon the return of feed pressure, the rivet can be urged again to the upper position in the delivery passage. If the upper end of the leaf spring 229 is not maintained in the delivery passage 212, upon

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the loss of feed pressure, the rivet will fall by gravity to a location at the top of the punch 216. When feed pressure is returned, it would be extremely difficult, if not impossible, to direct the pressure in a direction that would urge the rivet to the top of the delivery passage.

As set forth in applicants' claim 1, as amended, the at least one catch element (18), including the at least one portion (21), is located externally of the prescribed location, and remains externally of the prescribed location, when the at least one catch element and the at least one portion are deflected by the component (12) being fed adjacent thereto.

For the foregoing reasons, applicants submit that claim 1, as amended, and dependent claims 2, 7 through 14, patentably distinguish over any suggestion of the Blacket patent, and hereby request withdrawal of the rejection thereof.

Claims 2 and 7 through 14 set forth structure not suggested by the Blacket patent. For example, in claim 2, the at least one catch element (18) includes a locking face (22). In claims 7, the at least one catch element (18) is movable around an axis (38). In claim 8, the biasing element (39) is a compression spring. In claim 9, the conveyor includes biased positioning segments (9,10). In claim 10, the conveyor includes biasing elements (27,28) for urging together, and allowing displacement of, the positioning segments (9,10). In claim 11, each positioning segment (9,10) is pivotable about a respective axis. In claim 12, the positioning segments (9, 10) have a form corresponding to the cross section of the feed duct (11). In claim 13, the positioning segments (9,10) form a continuation of the feed duct. In claim 14, the conveying duct (16) is formed by a split sleeve (31).

For the foregoing reasons, claims 2 and 7 through 14 further distinguish over any suggestion of the Blacket patent, and withdrawal of the rejection of these claims is hereby requested.

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Claims 1, 2, 7 and 8 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,192, 012 (hereinafter "the Schafer patent").

As set forth in applicants' amended claim 1, at least one portion (21) of an at least one catch element (18) is removably extendable into and out of a feed path of a head guiding duct (13). The at least one catch element (18) and the at least one portion (21) are mounted for deflected movement out of the feed path of the head guiding duct (13) against the normal urging of a biasing element (39) upon engagement with **each** elongate component (12) being fed through the feed path.

The Schafer patent shows a spring member 8 which has an end portion extending into the feed path of a head 12 of a nail 10. As each of a plurality of the nails 10 are fed through the feed path, the lead nail engages the end portion of the spring member 8, which **precludes** continued advancement of the plurality of nails. Apparently, in order to advance the lead nail 10 past the end portion of the spring member 8, a force must be applied to the trailing end of the plurality of nails. After the lead nail has advanced past the end portion of the spring member 8, the second nail of the plurality is precluded from advancing as described above.

The Schafer patent does not suggest deflection of the end portion of the spring member 8 upon the engagement thereof with each advancing nail 10.

For the foregoing reasons, applicants' amended claim 1, and dependent claims 2, 7 and 8 patentably distinguish over any suggestion of the Schafer patent, and withdrawal of the rejection of these claims is hereby requested.

Applicants' claim 2 further distinguishes over the Schafer patent by setting forth a locking face (22) which prevents slipping of the lead elongate component (12) passed the prescribed location. Note that the end portion of the spring member 8 is above the head

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12₁ of the lead nail 10 and cannot preclude from slipping from the insertion position illustrated in the figure of the Schafer patent.

Applicant's claim 7 further distinguishes over the Schafer patent by setting forth that the at least one catch element (18) is movable pivotally around an axis (38), with a biasing element (39) allowing movement of the at least one catch element from a feed path upon engagement with the elongate components (12).

Applicants' claim 8 further distinguishes from the Schafer patent by setting forth that the at least one catch element (18) is formed with a first end (21), a second end portion, an axis (38) intermediate the first end and the second end, and a compression spring (39) engaging the at least one catch element (18) between the axis (38) and the first end of the at least one catch element (18).

For the foregoing reasons, applicants submit that claims 2, 7 and 8 further distinguish patentably over the Schafer patent, and hereby request withdrawal of the rejections thereof.

Claim 14 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Olvera patent in view of U.S. Patent No. 5,810,239 (hereinafter "the Stich patent").

As noted above, applicants are submitting herewith a Declaration, under 37 C.F.R. § 1.131, showing completion of the invention set forth in the active claims of this application, including claim 14, prior to the effective date, September 12, 1997, of the Olvera patent. Therefore, applicants submit that any rejection based the Olvera patent, including the above-noted rejection which includes the Stich patent, should be withdrawn.

Claim 14 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Schafer patent in view of the Stich patent.

Applicants set forth in claim 14, which depends from claims 1 or 9, that the conveying duct (16) is formed by a split sleeve (31) having a first end portion (34) adjacent the prescribed location and a second end portion (34) remote from the prescribed location.

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At least one resilient element (36) is arranged on the second end portion (34). The cross section of the conveying duct (16) is tapered conically substantially from the first end portion (34) to the second end portion (35), and is enlargeable against the action of the resilient element (36).

The Schafer patent has been discussed above with respect to the rejection of claims 1, 2, 7 and 8 as being unpatentable over the Schafer patent, and will not be repeated here. But the reasons for the distinguishment of claims 1, 2, 7 and 8 over the Schafer patent apply to the rejection of claim 14 over the Schafer patent in view of the Stich patent.

The Stich patent shows a nailing machine which includes facility for feeding a series of nails 5 from a feed path into an upper location (as viewed in Fig. 6a) of a cylindrical nose part 3. Thereafter the nail 5 is pushed axially through the cylindrical nose part 3, which is not a split sleeve, but is a unitary cylinder through which the nail is moved. Therefore, the feed path of the head of the nail 5 does not pass through a conveying duct which is tapered conically from the upper location to a second location remote from the first location.

In addition, applicant submits that there is nothing in common between the structures of the Schafer patent and the Stich patent which would suggest or motivate one to combine the teachings of the two patents to suggest a structure as set forth in applicants' claim 14.

For the forgoing reasons, applicants submit that claim 14 patentably distinguishes over any suggestion of the Schafer patent and the Stich patent, and hereby requests the withdrawal of the rejection.

Applicants submit that, for the foregoing reasons, applicants' claims 1, 2 and 7 through 15 are allowable, and hereby request such allowance.

Applicants submit further that this application is in condition for allowance and such allowance is hereby solicited.

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If the Examiner wishes to discuss any aspects of this response, or any other aspects of this application, the Examiner should call applicant's representative, J. Bruce Hoofnagle, at (410) 442-2417.

Respectfully submitted,



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